

WHAT IS CLAIMED IS:

1. An elongated load-bearing support device with load-bearing strands each having a plurality of fibers, the strands being surrounded by a sheath, comprising:
5 a plurality of fibers formed of a base material being in a first phase; and
a reinforcing material being in a second phase and being distributed in said base material.
2. The support device according to claim 1 wherein said plurality of fibers is
10 formed into one of a cable and a belt.
3. The support device according to claim 1 wherein said base material is one of steel, plastic, synthetic compositions, aramid and Zylon and said reinforcing material increases a modulus of elasticity of each of said fibers in a longitudinal and/or radial
15 direction of said fibers.
4. The support device according to claim 1 wherein said reinforcing material has a higher modulus of elasticity than a modulus of elasticity of said base material.
- 20 5. The support device according to claim 1 wherein said reinforcing material is arranged and distributed in said base material in the form of at least one of long fibers, short fibers, spheres, grains, capsules, discs and plates forming a matrix.
6. The support device according to claim 1 wherein said plurality of fibers is
25 surrounded by a sheath.
7. An elongated load-bearing elevator support device with load-bearing strands each having a plurality of fibers, the strands being surrounded by a sheath, comprising:
a plurality of fibers formed of a base material being in a first phase; and
30 a reinforcing material being in a second phase and being distributed in said base material.

8. The elevator support device according to claim 7 wherein said first phase base material is one of steel, plastic, synthetic compositions, aramid and Zylon; and said second phase reinforcing material increases a modulus of elasticity of said fibers in a longitudinal and/or radial direction of said fibers.

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9. The elevator support device according to claim 7 wherein said reinforcing material has a higher modulus of elasticity than a modulus of elasticity of said base material.

10 10. The elevator support device according to claim 7 wherein said reinforcing material is arranged and distributed in said base material in the form of at least one of long fibers, short fibers, spheres, grains, capsules, discs and plates forming a matrix.

11. A method of producing an elongated elevator load-bearing support device
15 comprising the steps of:

- a. forming a plurality of load-bearing strands from a base material in a first phase and a reinforcing material in a second phase; and
- b. surrounding said plurality of fibers with a sheath to form the support device.

20 12. The method according to claim 11 including a step of selecting the base material from steel, plastic, synthetic compositions, aramid and Zylon.

13. The method according to claim 11 including a step of selecting the reinforcing material to have a higher modulus of elasticity than a modulus of elasticity of the base
25 material.

14. The method according to claim 11 including a step of selecting the reinforcing material to increase a modulus of elasticity of the fibers in a longitudinal and/or radial direction of the fibers.

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15. The method according to claim 11 including a step of forming the reinforcing material as particles in the form of at least one of long fibers, short fibers, grains, capsules, spheres, discs and plates.